USES AND ABUSES OF PRESERVATIVE-TREATED TIMBERS PRODUCED FOR THE BUILDING INDUSTRY IN PENINSULAR MALAYSIA

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Timber is a versatile natural material selected to provide a variety of structural and non-structural end-products, and unlike alternative construction materials, the wood resource is regarded as being environmentally friendly which augers well for an increasingly environmentally conscious society we live in. Malaysia's durable timber resources (generally highly regarded for their potent extractives or "natural preservatives") cannot be sustained indefinitely, hence leading to an increased utilisation of the relatively less-durable timbers (often lacking in anti-microbial extractives), the drawback of which concerns their generally high susceptibility to biodeterioration. This paper discusses (i) relevant FRIM research results and official Malaysian Standards on the suitability of Malaysian hardwoods for use in their naturally durable or preservative-treated forms protected from decay fungi and termites (sapstain control excluded), and (ii) progressive development of the timber preservation industry in Malaysia (anti-sapstain preservation excluded), and in particular that of copper-chrome-arsenic (CCA) and boron-based preservative treatments for these mixed hardwoods being widely used today. It describes instances of unethical practices by certain errant suppliers of treated wood affecting the development in the preservation industry in the absence of any official quality control of treated timbers. Against such growing concern of treatment malpractices, the paper also highlights the pressing, and long overdue need for official regulation and quality control of treated timbers for domestic use, including the need to instill a high level of public awareness on the potential hazards of timbers to decay fungi and termites under adverse tropical conditions of this country, and the intrinsic economic benefits of sound preservation practices. The ultimate aim of a well regulated wood treatment activity would obviously be to strive for: (i) optimal utilisation of the remaining generally low-to-moderate durability mixed hardwood resources in the country, (ii) the "survival" of the pressure-treatment industry, and (iii) competitiveness of those treatable Malaysian hardwoods against alternative construction materials in ensuring long-term biological resistance in service.

Introduction — wood usage in buildings

Almost 600,000 units of houses will be built during the current Seventh Malaysia Plan 1996–2000 to alleviate the shortage of residential houses, whereby 24% will be for low-cost housing and 76% for medium-to-high cost houses. Quality timber houses are also planned to be built particularly to satisfy increased needs by the low-income category for housing. Regardless of the extent of wood being employed for building, at least building timbers are mainly used as roof-trusses, joists, claddings, door and window frames, doors and form-works or shuttering boards.